i-BSHS Lecture: Technology

Friday, November 4, 2016
12:00-12:55 PM • 121 SOUTH MAIN, ROOM 245
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The Department of Behavioral and Social Sciences’ i-BSHS (Innovations in Behavioral and Social Health Sciences) lecture series fosters collaborative discussion on innovative behavioral and social science-based approaches to improving population health.

“Measuring Behavior Using Mobile Technology and Micro Ecological Momentary Assessment”

Abstract: New mobile apps and wearable devices for measuring health-related behavior and motivating health behavior change are being introduced by academia and industry at a dizzying rate. Automatic interpretation of sensor data is creating exciting opportunities for “just-in-time” behavioral measurement and intervention. However, to fully develop new context-sensitive or behavior-sensitive technologies requires new methods for gathering and interpreting temporally-dense activity and behavior and state data. I will discuss some of my group’s work on automatic recognition of physical activity from passive mobile motion (accelerometer) sensors. Then I will discuss some recent work exploring the interruption burden of self-report and microinteraction-based ecological momentary assessment ("micro" EMA, or µEMA) using smartwatches, where self-report questions can be answered with a quick glance and a tap – nearly as quickly as checking the time on a watch.

Stephen Intille, Ph.D., is an Associate Professor in the College of Computer and Information Science and Bouvé College of Health Sciences at Northeastern University. His research focuses on the development of novel healthcare technologies that incorporate ideas from ubiquitous computing, user-interface design, pattern recognition, behavioral science, and preventive medicine. Areas of special interest include technologies for measuring and motivating health-related behaviors, technologies that support healthy aging and well-being in the home setting, and mobile technologies that permit longitudinal measurement of health behaviors for research, especially the type, duration, intensity, and location of physical activity.